

$$11 \times 22 = (1+1) \times (2+2) = 2(1+1) + 2(1+1) = 2+2 + 2+2 = 22 + 22 = 242.$$

$$12 \times 34 = (1+2) \times (3+4) = 3(1+2) + 4(1+2) = 3+6 + 4+8 = 36 + 48 = 3+108 = 408.$$

$$98 \times 76 = (9+8) \times (7+6) = 7(9+8) + 6(9+8) = 63+56 + 54+48 = 686 + 588 =$$

$$\begin{array}{r} 686 \\ + 588 \\ \hline 6+13+148 \\ = 7,448. \end{array}$$

$$567 \times 89 = (5+6+7) \times (8+9) = 8(5+6+7) + 9(5+6+7) = 40+48+56 + 45+54+63 =$$

$$44+136 + 4+10+103 = 4536 + 5103 =$$

$$\begin{array}{r} 4536 \\ + 5103 \\ \hline 4+10463 \\ = 50,463. \end{array}$$

$$98,765 \times 43,212 = (9+8+7+6+5) \times (4+3+2+1+2) = 4(9+8+7+6+5) + 3(9+8+7+6+5) +$$

$$2(9+8+7+6+5) + 1(9+8+7+6+5) + 2(9+8+7+6+5) = 36+32+28+24+20 +$$

$$27+24+21+18+15 + 18+16+14+12+10 + 098765 + 18+16+14+12+10 = 394+1060 +$$

$$296295 + 197530 + 098765 + 197530 =$$

$$\begin{array}{r} 395060 \\ 296295 \\ 197530 \\ 098765 \\ + 197530 \\ \hline 3+11+15+15+25+31+22+1180 \\ = 4,267,833,180. \end{array}$$